

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PETER HAGMANN, SHARLA BORGHORST,  
JOHN GOLBY, PETER HERBRECHTSMEIER,  
OTTO KRETZSCHMAR, BERNHARD SEIFERLING,  
NORBERT SOLLNER, and BEAT MULLER

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Appeal No. 2000-0634  
Application No. 08/274,942

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HEARD : July 09, 2002

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**MAILED**

**JUL 26 2002**

**PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Before DELMENDO, JEFFREY T. SMITH and MOORE, *Administrative Patent Judges*.  
JEFFREY T. SMITH, *Administrative Patent Judge*.

***DECISION ON APPEAL***

Applicants appeal the decision of the Primary Examiner finally rejecting claims 1 to 5, 8 to 40, 42 to 61 and 63 to 81, all of the claims present in the application. We have jurisdiction under 35 U.S.C. § 134.

### ***BACKGROUND***

Appellants' invention relates a process and a device for producing molded polymeric articles. Molded articles such as contact lens can be formed by the claimed invention.

Claim 1, which is representative of the claimed invention, appears below:

1. A process for the manufacture of mouldings that are crosslinked in a mould at least to a degree sufficient to be released from the mold, in which process a crosslinkable material that is in a state in which it is at least partially uncrosslinked is introduced into the mould, the mould having a cavity determining the shape of the moulding to be produced and being at least partially permeable to an energy suitable to cause the crosslinking by impingement of the energy upon the at least partially uncrosslinked material, wherein the impingement of the energy causing the crosslinking upon the at least partially uncrosslinked material is restricted to the cavity and wherein the edge contour of the moulding is determined substantially by the spatial restriction of the energy impingement, so that a moulding is produced free from burrs or flashes.

### ***CITED PRIOR ART***

As evidence of unpatentability, the Examiner relies on the following references:

Clark et al. (Clark)	4,113,224	Sep. 12, 1978
Fogarty <sup>1</sup> (Published European Patent Application)	EP 0 484 015	May 06, 1992

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<sup>1</sup> The Appellants and Examiner refer to this reference by the document number.

Claims 1 to 4, 8 to 40, 42 to 61 and 63 to 81 are rejected as unpatentable under 35 U.S.C. § 103(a) as obvious over Clark. Claim 5 is rejected as unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of Clark and Fogarty.<sup>2</sup> (Answer, pp. 3 and 5).

Appellants have indicated (Brief, page 3) that, for the purposes of this appeal, the claims will stand or fall together. Consistent with this indication, Appellants have made no separate arguments with respect to the remaining claims. Accordingly, all the claims will stand or fall together for each ground of rejection, and we select claims 1 and 5 as representative of all of the rejected claims on appeal for each ground of rejection. Note *In re Dance*, 160 F.3d 1339, 1340 n.2, 48 USPQ2d 1635, 1636 n.2 (Fed. Cir. 1998); *In re King*, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); *In re Sernaker*, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983).

### DISCUSSION

We have carefully reviewed the claims, specification and applied prior art, including all of the arguments advanced by both the Examiner and Appellants in support of their respective positions. This review leads us to conclude that the Examiner's § 103 rejections are well founded. Our reasons for this determination follow.

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<sup>2</sup> Appellants, in the Brief, indicated that the claims 1 to 5, 8 to 40, 42 to 61 and 63 to 81 have been rejected over the combination of Clark and Fogarty. (Brief, pp. 3 and 8). However, the Examiner has not presented this rejection in either the Final rejection or Answer.

Rather than reiterate the respective positions advanced by the Examiner and Appellants, we refer to the Examiner's Answer and to Appellants' Brief for a complete exposition thereof.

Clark discloses an apparatus and a process for forming lenses and/or semi-finished lens blanks. The apparatus includes a first mold member and a mating second mold member. The first and second mold members also include structure for defining an annular restriction interconnecting an annular reservoir with the mold cavity. (Col. 2, ll. 45 to 63). Clark discloses after the mold cavity and the reservoir have been filled, the lens material in the mold cavity is polymerized while the lens material in the reservoir is inhibited from polymerizing. (Col. 6, ll. 35 to 38). Clark also discloses the fluid environment to which the lens material in the reservoir is exposed may be one which inhibits polymerization. (Col. 6, ll. 52 to 56). Clark discloses that the polymerization of the lens material should proceed from the center of the mold outwards in order to avoid polymerizing that portion of the lens material in the mold which is adjacent the edge of the mold cavity and, consequently, blocking off the reservoir from the center section of the mold cavity. (Col. 7, ll. 5 to 11). Clark discloses a diaphragm (141) can be used to mask/inhibit polymerization of the lens material adjacent to the mold. (Col. 7, ll. 21 to 25). Clark discloses heat or UV radiation, parallel to the mold halves, can be used to polymerize the lens material. (Col. 7, ll. 26 to 28). Clark discloses as a preferred embodiment that after the lens material within the

mold cavity has been polymerized, any uncured lens material remaining in the reservoir also is polymerized for convenience in later handling. (Col. 7, ll. 49 to 52). Clark discloses when the material in the reservoir is allowed to polymerize a flash is formed which should be removed. (Col. 8, ll. 47 to 52).

Appellants argue that Clark does not appreciate the claimed one-step masking process for forming molded articles and that Clark is directed to a lens mold which is designed to produce an unfinished contact lens by a sequential two-step process wherein the second step is the removal of the flash. (Brief, pp. 3 to 5). We do not agree. As stated above, Clark teaches a process for producing a finished molded lens that does not include a flash as argued by Appellants. Appellants are limiting their arguments to the preferred embodiments of the Clark reference. A reference is available for all that it teaches, not just the preferred embodiments. *In re Fritch*, 972 F.2d 1260, 1264, 23 USPQ2d 1780, 1782 (Fed. Cir. 1992). Appellants have chosen to ignore the portions of Clark that disclose polymerizing that portion of the lens material in the mold which is adjacent to the edge of the mold cavity should be avoided. (Col. 7, ll. 5 to 11). Clark discloses that the polymerization of the lens material should proceed from the center of the mold outwards in order to avoid and, consequently, blocking off the reservoir from the center section of the mold cavity. (Col. 6,

ll. 46 to 47 and col. 7, ll. 30 to 34). Clark further discloses that polymerization of the material adjacent to the lens is preferably allowed to occur upon removal of the diaphragm/mask (4). (Col. 7, ll. 21 to 25).

Finally, we not Clark envisions an embodiment where the polymerization to the edge of the lens may be the end of the polymerization. See reproduced below:

In the foregoing example the surface of the lens material in the reservoir is inhibited from polymerizing because of the fact that such material is exposed to air. However, for convenience in later handling, it is preferred that after the lens material within the mold cavity has been polymerized, any uncured lens material remaining in the reservoir also be polymerized. This may be accomplished by placing the mold in a nitrogen or other inert gas environment and subjecting the remaining reservoir material to ultra violet radiation.  
[Column 7, lines 46 to 55.]

Although it is preferred by Clark to polymerize the remaining material in the reservoir, in the absence of this optional preferred step the edge of the lens is delineated by the diaphragm, as required by claim 1.

During the Hearing, Appellants for the first time directed our attention to column 10 of the Clark reference which discloses: "In view of the foregoing, it will be appreciated that, as used in this specification, the term 'lens' includes lenses which are cast in the final desired shape (except for edging) as well as semi-finished lens blanks." This language does not necessarily mean that the finished lens of Clark requires further processing in a subsequent step as argued by Appellants. As stated above, Clark discloses the conditions necessary for prevention of polymerization of the material adjacent to the mold cavity.

During the Hearing, Appellants also argued that the claim language “wherein the impingement of the energy causing the crosslinking upon the at least partially uncrosslinked material is restricted to the cavity and wherein the edge contour of the moulding is determined substantially by the spatial restriction of the energy impingement, so that a moulding is produced free from burrs or flashes” renders the claimed invention patentable over Clark. We do not agree. Clark discloses the polymerization of the lens material proceeds from the center of the mold cavity and the area adjacent to the mold cavity is restricted by the diaphragm which functions as a mask to restrict polymerization. The claim language “wherein the edge contour of the moulding is determined substantially by the spatial restriction” would include the use of a mask to determine the edge contour of the moulding.

The Examiner relies on the combination of Fogarty and Clark to reject claim 5 as unpatentable under 35 U.S.C. § 103(a). Appellants have not argued that the use of molds having permeabilities to crosslinking energy in the process/apparatus of Clark would not have been obvious to one of ordinary skill in the art as suggested by the Examiner. (Answer, p. 5). Appellants argue that Fogarty does not remedy the deficiency in the two-step process of Clark. (Brief, pp. 7-8). As stated above, Clark is not limited to a two-step process. We agree with the Examiner’s determination that the use of molds having permeabilities to

crosslinking energy in the process/apparatus of Clark would have been obvious to one of ordinary skill. Thus, we uphold the Examiner's rejection of claim 5.

Because there is substantial evidence to support the Examiner's determination of a *prima facie* case of obviousness over each of the applied prior art references, the burden of proof was properly shifted to the appellants to rebut the *prima facie* case by presenting persuasive argument or evidence (e.g., unexpected results). *In re Mayne*, 104 F.3d 1339, 1343, 41 USPQ2d 1451, 1455 (Fed. Cir. 1997). ("With a factual foundation for its *prima facie* case of obviousness shown, the burden shifts to applicants to demonstrate that their claimed fusion proteins possess an unexpected property over the prior art."). Appellants have not sufficiently rebutted the *prima facie* case of obviousness.

### **CONCLUSION**

For the foregoing reasons and those set forth in the Answer, based on the totality of the record, we determine that the preponderance of evidence weighs in favor of obviousness, giving due weight to Appellants arguments. Accordingly, the Examiner's rejections under 35 U.S.C. § 103(a) are affirmed.

The rejection of claims 1 to 4, 8 to 40, 42 to 61 and 63 to 81 under 35 U.S.C. § 103(a) as obvious over Clark is affirmed.

The rejection of claim 5 under 35 U.S.C. § 103(a) as obvious over the combination of Clark and Fogarty is affirmed.



Appeal No. 2000-0634  
Application No. 08/274,942

### Time for taking action

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

**AFFIRMED**

Donald H. DeLund

ROMULO H. DELMENDO  
*Administrative Patent Judge*

*Jeffrey T. Smith*  
JEFFREY T. SMITH

JEFFREY T. SMITH  
*Administrative Patent Judge*

  
JAMES T. MOORE

JAMES T. MOORE  
*Administrative Patent Judge*

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THOMAS HOXIE  
NOVARTIS CORPORATION  
PATENT AND TRADEMARK DEPT  
564 MORRIS AVENUE  
SUMMIT, NJ 07901-1027